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THE WINTER MIGRATION OF 1916-17 IN THE NORTHWEST

By J. HOOPER BOWLES

WITH TWO PHOTOS

THE WINTER of 1916-17 will long be remembered by the ornithologists of the northwest at least, as breaking all previous records for the migration of numerous varieties of northern land birds. I wish to be particularly explicit as to the term land birds as, for some reason, we have had practically no migration of northern sea birds. This is all in very marked contrast to the previous winter of 1915-16, when we experienced the largest migration of northern sea birds that I have ever seen, but practically no migration at all of northern land birds. The winter of 1915-16 was the coldest and most severe that I have known during a residence of twenty years in the northwest, ice and snow remaining on the ground for weeks at a time. The present winter of 1916-17, on the contrary, has been rather a mild one, there having been only a little ice and but a few light falls of snow that have lasted only three or four days at the most.

Returning to the subject in hand, the first migrants of importance to be noted were the Horned Owls, which began putting in their appearance early in the fall of 1916. It is difficult to tell just when this began, because of the possibility of the resident birds being taken. However, as the season advanced specimens were taken in almost all possible gradations of plumage, although I saw none that I should consider perfectly typical of true *Bubo virginianus subarcticus*. Very close approaches to this form were taken, and from these gradations led into extremely dark examples of *B. v. saturatus*, in fact very much darker than any that I have ever seen before. As I have no means of positively identifying the specimens it is impossible to say just what, or how many, forms may be represented in the dozens of birds that I have examined, but I expect to have this all cleared up at a later date.

At first these migrants were regarded only as what might be usually expected here, but soon they became so numerous as to be a veritable pest. Poultry farms of all kinds were raided without mercy, one example that I shall give in some detail being the gamebird farm belonging to Dr. G. D. Shaver, of Tacoma. The captive wild ducks seemed to have the most attraction, and of fifty-three that the doctor had at the beginning of last fall, only twenty-six are left at the present writing—and the owls are hooting there now. The doctor shot a number of them, but killed more by poisoning the carcasses left uneaten. These usually had the heads eaten off, after which the owls would drag them in under some log or roll of wire netting where they were well hidden. It is interesting to note that sometimes the owls would not return to their kill for a period of time ranging from one to five or six days. In two instances two owls were poisoned in one night by eating the same bird, and one owl carried a full-grown Mallard hen twenty feet up into a fir tree where both birds were found dead about a week later, the owl firmly clutching the poisoned body of its prey.

I examined a great many stomachs of these owls, the contents of which showed about an equal number of mammals and large birds. Nothing smaller than a Green-winged Teal was found. A number of stomachs contained the remains of hens, curiously enough all of them being Barred Plymouth Rock. This is decidedly strange, because such breeds as the White Leghorn outnum-

ber them in local poultry yards nearly twenty to one. The mammals eaten were confined almost entirely to rabbits and small skunks, or civets (*Spilogale*), it was somewhat difficult to tell which as both have the same odor. It is remarkable what one of these owls can swallow, as in one stomach I found the entire hind leg of a full grown civet, which was torn off where it joined the body. Mr. D. E. Brown, of Seattle, reports finding the entire leg of a full grown hen in one owl.

Great as was the flight of these owls in the vicinity of Tacoma, the main abundance seems to have centered in Vancouver Island, as is shown by a letter to me from Mr. Walter F. Burton, of Victoria, B. C. This I quote in part as follows: "We have a plague of Horned Owls here, which has cleaned out all our pheasants. Hundreds have been shot, but the damage is done. I was out after them yesterday and in a short walk counted fourteen pairs of pheasant wings. I have killed a great many of the owls. Their chief food here is pheasants, grouse, Short-eared Owls and Meadowlarks. Now that they have finished the gamebirds they are eating salt-water ducks; the last one I shot had a

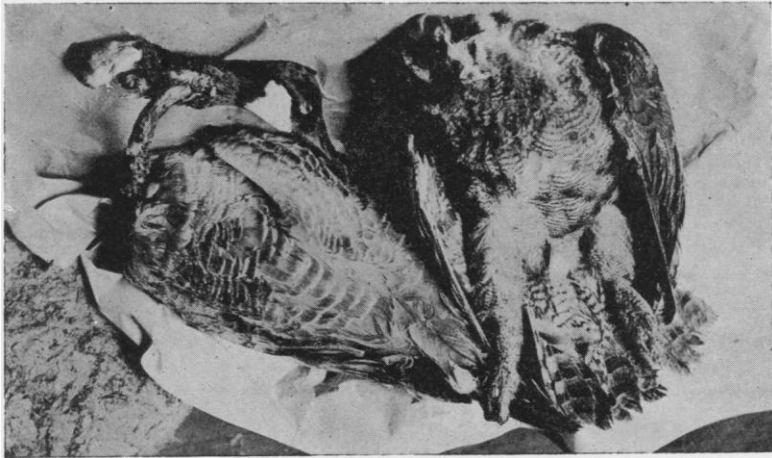


Fig. 46. POISONED DUSKY HORNED OWL CLUTCHING HUTCHINS GOOSE THAT IT HAD KILLED; TACOMA, WASHINGTON.

Golden-eye. Out of all the owls shot here I have not heard of a rat or mouse being found in the stomachs, and many have been searched." This letter was written under date of January 1, 1917, and from as excellent and conservative an observer as Mr. Burton, must be accepted as of great value.

The largest bird that I have known the Horned Owls to kill is the Hutchins Goose shown in the illustration (fig. 46), which also came from the game farm of Dr. Shaver. The killing must have taken place in the water, as the body of the goose was in the lake with the head and neck on a floating log. The body was poisoned and the owl found beside it next morning, the claws of one foot securely grasping the tail of the goose as may be seen in the picture. It is of interest to see that the method of killing so large a bird was by ripping up the neck, as the head and body were uninjured. This is precisely the same method used by the Kennicott Screech Owl in killing a full grown Ring-necked Pheasant. In both species of owl the victim is several times as heavy as the murderer.

The Horned Owl Invasion, as it might be called, extended at least as far south as Portland, Oregon, where pheasant farms in that vicinity have suffered severely from their depredations. The main line of flight seems to have been on the Pacific coast side of the Cascade Mountains, as on the east side reports do not indicate any very great increase over the usual numbers. Among the many interesting features of the migration of these owls is the fact that at least seventy-five percent of those taken have been females. This was in the vicinity of Tacoma, but it would be desirable to learn from other observers the main route taken by the males, if many of that sex joined in the general migration. Another interesting point is that up to the time of this writing, March 1, none of the birds examined by me showed the least indications of breeding. To say the least this is unusual in Horned Owls at this season of the year.

[*Later.*—The most recent horned owl examined was a female taken April 2, 1917, which showed not the least signs of breeding. This bird was examined by Mr. Edwards, who reported it to me, and mounted it. Upon comparison it shows a strong tendency towards *algistus*, although I should not consider it by any means typical, and is undoubtedly one of the horde that has swept down from the far north.]

Another interesting visiting species, that commenced arriving at about the same time as the above mentioned birds, is the Snowy Owl (*Nyctea nyctea*). The first individual recorded in the vicinity was brought in to Mr. Fred Edwards, the Tacoma furrier and taxidermist, on November 10, 1916. They became very abundant after that date, Mr. Edwards having about thirty of them brought in for mounting. The last record was taken January 25, 1917. Their food supply was about evenly divided between ducks and mammals, the latter represented by mice and rats. I doubt very much if any of the ducks eaten were brought down by the owls, all evidence seeming to show that wounded birds only were taken. In at least one instance an owl seized a duck as it reached the ground after being shot, facing the hunter with great courage as he came to secure his game. It seems probable that this migration started from farther towards the interior than that of the Horned Owls; for Mr. Burton, in Victoria, reports Snowy Owls as present, but not in great numbers. In Washington they were very abundant at Bellingham in the northwestern part of the state, as reported by Mr. J. M. Edson, of that city. At Kiona, on the east side of the Cascade Mountains, Mr. F. R. Decker reports them as common.

In a recent letter from Mr. Geo. G. Cantwell, of Puyallup, Washington, dated March 31, 1917, he writes that he has just returned from Dungenes, Washington, where three Snowy Owls were still lingering in the vicinity. Such a late date is unprecedented for these owls in Washington, in my experience, and it will be most interesting if further data on the subject can be obtained.

Another handsome migrant, which came in numbers for the first time in my experience, was the Goshawk. Although I have had none of the birds identified, such a very wide variation is to be found in both adult and immature specimens that there is hardly room for doubt that both *Astur atricapillus* and *A. a. striatulus* are represented. Goshawks seemed about equally numerous on both sides of the Cascades. Barnyard fowls seem to have made up their main food supply, the game farm of Dr. Shaver having contributed its share as usual. He killed one by poisoning a duck, and shot another while it was eating one of his hens. Mr. Edwards reports finding the remains of a rab-

bit in the stomach of one specimen, the only mammal recorded. One bird shot by Mr. Decker had been eating a Bob-white Quail.

Of the smaller birds the Bohemian Waxwing (*Bombycilla garrula*) has been the most numerous, these beautiful birds coming in flocks of as many as five thousand. Although not unusual as a migrant east of the Cascades, this is only the third record that I have for them on Puget Sound. The illustration (fig. 47) shows a very small portion of an immense flock that I saw at Tacoma. Berries of the mountain ash, madroña, hawthorne, and other trees and shrubs constituted their chief food; but one warm day, February 3, 1917, a number



Fig. 47. BOHEMIAN WAXWINGS IN TACOMA, WASHINGTON, JANUARY 14, 1917.

were seen hovering and swooping about high above the tree tops. Upon collecting one of them the stomach was found to be packed with winged insects, which it had secured with all the ease and grace of a flycatcher. The first to be definitely recorded this season from Tacoma were taken by Mr. E. A. Kitchen and Mr. Stanton Warburton, Jr., of this city, on January 1, 1917. The birds were undoubtedly seen by Mr. Kitchen a week or ten days earlier, but he would not record them until he had one in hand.

Another rare migrant, which also makes the third time I have recorded it

here, is the Redpoll (*Acanthis linaria linaria*), my first specimen for the season being taken on February 3, 1917. After that date Redpolls were seen several times, one flock containing at least a thousand individuals. I examined them carefully with a glass at short range, but could see none that might have belonged to any other varieties of Redpoll.

Tacoma, Washington, April 5, 1917.

OBSERVATIONS ON SOME FRESNO COUNTY BIRDS

By H. S. SWARTH

(Contribution from the Museum of Vertebrate Zoology of the University of California)

DURING the fall of 1916 the writer, together with Mr. Joseph Dixon and Mr. Halsted G. White, in carrying on field work for the Museum of Vertebrate Zoology in the Kings River section of the Sierra Nevada, had occasion to do some bird collecting at a point lying just within the boundary of the territory covered by John G. Tyler in his papers on "Birds of the Fresno Region, California" (Pacific Coast Avifauna no. 9, 1913, and CONDOR, xviii, 1916, p. 167 and p. 194). In the course of our observations several species were encountered not included in those lists, as well as others whose presence is based upon such scanty data that it seems desirable to place on record statements as to the manner in which we found them.

We stayed at the little hamlet of Minkler, in the southern part of Fresno County, some ten miles east of the town of Sanger. At this point the valley for miles around is largely devoted to vineyards, practically all arable land being under cultivation, and in what would seem to be an unfavorable condition for birds; but the bottomlands of the Kings River, in this section split up into innumerable narrow and tortuous channels, is a wilderness of tangled willows and underbrush that forms a haven of refuge for many species. Many birds, too, did seem to find attraction in the vineyards. About a mile to the eastward the first of the Sierran foothills rises abruptly, barren of trees or underbrush, but well covered with grasses and other forage plants, and evidently used at times for cattle grazing. Scattered over the hills are numerous rock piles of varying extent.

Birds were numerous, and the variety of surroundings and cover found within a relatively small area was productive of many rather striking contrasts among species observed in close proximity. We remained at Minkler ten days, October 4 to 13, and during this time seventy-seven species of birds were listed by our party. Of these, the following sixteen seem worthy of special mention regarding their occurrence at this point.

Buteo lineatus elegans. Red-bellied Hawk. Included in Tyler's supplementary list as occurring sparingly in the Kings River bottoms near Sanger. This is the section we were in, and one or more of these hawks were seen daily, while they could be heard constantly giving their characteristic chattering call as they circled overhead.

Phalaenoptilus nuttalli californicus. Dusky Poor-will. One specimen recorded by Tyler. I saw one in a vineyard at Minkler, October 5, and others were seen or heard at points farther back in the hills. It is undoubtedly of fairly common occurrence in this section.